

FILE 'HOME' ENTERED AT 09:36:32 ON 04 FEB 2009

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.22

0.22

FILE 'REGISTRY' ENTERED AT 09:36:41 ON 04 FEB 2009

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 2 FEB 2009 HIGHEST RN 1099859-47-8

DICTIONARY FILE UPDATES: 2 FEB 2009 HIGHEST RN 1099859-47-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10574157.str



chain nodes :

```

11 13 14 15 16 17 18 19 21 22 25
ring nodes :
1 2 3 4 5 6 7 8 9
chain bonds :
8-11 13-14 13-15 13-16 16-17 16-25 17-18 17-22 18-19 18-21
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9
exact/norm bonds :
5-7 6-9 7-8 8-9 8-11 13-14 13-15 13-16 16-17 16-25 17-18 17-22 18-19
18-21
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6

```

G1:O,S

G2:Cb,Hy,Ak,Ph

G3:OH,SH,NH2,H

G4:C,H,N

Match level :

```

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 11:Atom
13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS 21:CLASS
22:CLASS 25:CLASS
26:Atom

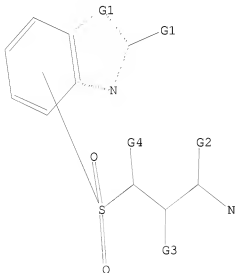
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L1 STRUCTURE UPLOADED

=> d

L1 HAS NO ANSWERS

L1 STR



G1 O,S

G2 Cb,Hy,Ak,Ph

G3 OH,SH,NH2,H

G4 C,H,N

Structure attributes must be viewed using STN Express query preparation.

=> s l1 sss sam

SAMPLE SEARCH INITIATED 09:37:09 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 102 TO ITERATE

100.0% PROCESSED 102 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 1435 TO 2645

PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 sss full

FULL SEARCH INITIATED 09:37:18 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 2261 TO ITERATE

100.0% PROCESSED 2261 ITERATIONS

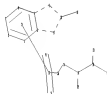
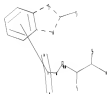
0 ANSWERS

SEARCH TIME: 00.00.01

L3 0 SEA SSS FUL L1

=>

Uploading C:\Program Files\Stnexp\Queries\10574157A.str



chain nodes :

11 13 14 15 16 17 18 19 21 22 26

ring nodes :

1 2 3 4 5 6 7 8 9

chain bonds :

8-11 13-14 13-15 13-26 16-26 16-17 17-18 17-22 18-19 18-21

```

ring bonds :
1-2  1-6  2-3  3-4  4-5  5-6  5-7  6-9  7-8  8-9
exact/norm bonds :
5-7  6-9  7-8  8-9  8-11  13-14  13-15  13-26  16-26  16-17  17-18  17-22  18-19
18-21
normalized bonds :
1-2  1-6  2-3  3-4  4-5  5-6

```

G1:O,S

G2:Cb,Hy,Ak,Ph

G3:OH,SH,NH2,H

G4:C,H,N

```

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 11:Atom
13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS 21:CLASS
22:CLASS 25:Atom
26:CLASS

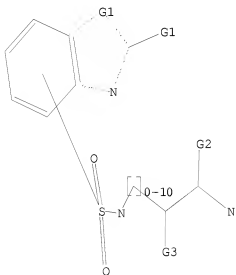
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L4 STRUCTURE UPLOADED

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=> d
L4 HAS NO ANSWERS
L4 STR

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G1 O,S

G2 Cb,Hy,Ak,Ph

G3 OH,SH,NH2,H

G4 C,H,N

Structure attributes must be viewed using STN Express query preparation.

=> s l4 sss sam

SAMPLE SEARCH INITIATED 09:40:46 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 67 TO ITERATE

100.0% PROCESSED 67 ITERATIONS 0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 849 TO 1831

PROJECTED ANSWERS: 0 TO 0

L5 0 SEA SSS SAM L4

=> s l4 sss full

FULL SEARCH INITIATED 09:40:52 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 1448 TO ITERATE

100.0% PROCESSED 1448 ITERATIONS 20 ANSWERS

SEARCH TIME: 00.00.01

L6 20 SEA SSS FUL L4

=> file capl

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

374.16

374.38

FILE 'CAPLUS' ENTERED AT 09:40:59 ON 04 FEB 2009

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE COVERS 1907 - 4 Feb 2009 VOL 150 ISS 6

FILE LAST UPDATED: 3 Feb 2009 (20090203/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l6

L7

6 L6

=&gt; d 1-6 ibib hitstr

L7 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:1469854 CAPLUS &lt;&lt;LOGINID::20090204&gt;&gt;

DOCUMENT NUMBER: 148:100596

TITLE: Preparation of aminobenzothiazolylsulfonamide derivatives as HIV protease inhibitors

INVENTOR(S): De Kock, Herman; Jonckers, Tim Hugo Maria; Boonants, Paul Jozef Gabriel Maria; Last, Stefaan Julien; Dierynck, Inge; Baumeister, Judith Eva; Van 'T Klooster, Gerben Albert Eleutherius

PATENT ASSIGNEE(S): Tibotec Pharmaceuticals Ltd., Ire.

SOURCE: PCT Int. Appl., 38pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007147884	A1	20071227	WO 2007-EP56235	20070622
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM AU 2007262943 A1 20071227 AU 2007-262943 20070622 PRIORITY APPLN. INFO.: EP 2006-116003 A 20060623 WO 2007-EP56235 W 20070622				

OTHER SOURCE(S): MARPAT 148:100596

IT 1000287-01-3

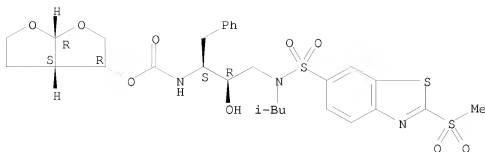
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of aminobenzothiazolylsulfonamide derivs. as HIV protease inhibitors)

RN 1000287-01-3 CAPLUS

CN Carbamic acid, N-[(1S,2R)-2-hydroxy-3-[(2-methylpropyl)[[2-(methylsulfonyl)-6-benzothiazolyl]sulfonyl]amino]-1-(phenylmethyl)propyl]-, (3R,3aS,6aR)-hexahydrofuro[2,3-b]furan-3-yl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2009 ACS ON STN  
 ACCESSION NUMBER: 2005:527407 CAPLUS <<LOGINID:20090204>>  
 DOCUMENT NUMBER: 143:59982  
 TITLE: Preparation of HIV protease inhibitors, in particular imidazolidine derivatives  
 INVENTOR(S): Flentge, Charles A.; Chen, Hui-Ju; Degoe, David A.; Flosi, William J.; Grampovnik, David J.; Huang, Peggy P.; Kempf, Dale J.; Klein, Larry L.; Krueger, Allan C.; Madigan, Darold L.; Randolph, John T.; Sun, Minghua; Yeung, Ming C.; Zhao, Chen  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 287 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050131042	A1	20050616	US 2003-733915	20031211
CA 2549389	A1	20050707	CA 2004-2549389	20041110
WO 2005061450	A2	20050707	WO 2004-US37745	20041110
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1709037	A2	20061011	EP 2004-810802	20041110
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
JP 2007513944	T	20070531	JP 2006-543826	20041110
MX 2006006610	A	20060831	MX 2006-6610	20060609
PRIORITY APPLN. INFO.: US 2003-733915 A 20031211 WO 2004-US37745 W 20041110				

OTHER SOURCE(S): MARPAT 143:59982  
 IT 854744-56-2P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

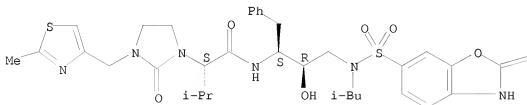
(antiviral agent; preparation of HIV protease inhibitors, in particular imidazolidine derivs.)

RN 854744-56-2 CAPLUS

CN 1-Imidazolidineacetamide, N-[ (1S,2R)-3-[[ (2,3-dihydro-2-oxo-6-benzoxazolyl)sulfonyl] (2-methylpropyl) amino]-2-hydroxy-1-(phenylmethyl)propyl]- $\alpha$ -(1-methylethyl)-3-[(2-methyl-4-thiazolyl)methyl]-2-oxo-, ( $\alpha$ S)- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

$\equiv$  O

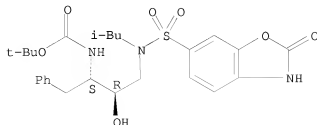
IT **854746-44-4P**, tert-Butyl [(1S,2R)-1-benzyl-2-hydroxy-3-[isobutyl[(2-oxo-2,3-dihydro-1,3-benzoxazol-6-yl)sulfonyl]amino]propyl]carbamate

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(intermediate; preparation of HIV protease inhibitors, in particular imidazolidine derivs.)

RN 854746-44-4 CAPLUS

CN Carbamic acid, [(1S,2R)-3-[[ (2,3-dihydro-2-oxo-6-benzoxazolyl)sulfonyl] (2-methylpropyl) amino]-2-hydroxy-1-(phenylmethyl)propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



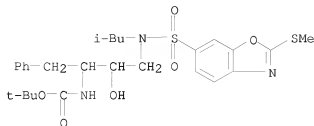


L7 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2005:300421 CAPLUS <<LOGINID:20090204>>  
 DOCUMENT NUMBER: 142:373819  
 TITLE: Methods for the preparation of aminohydroxypropyl  
 benzoxazolesulfonamides as intermediates in the  
 preparation of HIV protease inhibitors  
 INVENTOR(S): De Kock, Herman Augustinus; Filliers, Walter Ferdinand  
 Maria; Aelterman, Wim Albert Alex  
 PATENT ASSIGNEE(S): Tibotec Pharmaceuticals Ltd., Ire.  
 SOURCE: PCT Int. Appl., 65 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005030739	A1	20050407	WO 2004-EP52382	20040930
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SI, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2004276017	A1	20050407	AU 2004-276017	20040930
CA 2537877	A1	20050407	CA 2004-2537877	20040930
EP 1670773	A1	20060621	EP 2004-766869	20040930
EP 1670773	B1	20070207		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR			
BR 2004014916	A	20061107	BR 2004-14916	20040930
CN 1860107	A	20061108	CN 2004-80028097	20040930
AT 353323	T	20070215	AT 2004-766869	20040930
JP 2007507468	T	20070329	JP 2006-530265	20040930
ES 2281828	T3	20071001	ES 2004-766869	20040930
NZ 546279	A	20080926	NZ 2004-546279	20040930
IN 2006DN00930	A	20070810	IN 2006-DN930	20060222
KR 2006092224	A	20060822	KR 2006-705992	20060327
US 20070123574	A1	20070531	US 2006-574157	20060328
MX 2006003575	A	20060605	MX 2006-3575	20060330
NO 2006001951	A	20060502	NO 2006-1951	20060502
PRIORITY APPLN. INFO.:			EP 2003-103630	A 20030930
			US 2003-507996P	P 20031002
			WO 2004-EP52382	W 20040930

OTHER SOURCE(S): CASREACT 142:373819; MARPAT 142:373819  
 IT **849611-71-8P**  
 RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (key intermediate; methods for the preparation of aminohydroxypropyl benzoxazolesulfonamides as intermediates in the preparation of HIV protease inhibitors)  
 RN 849611-71-8 CAPLUS  
 CN Carbamic acid, [2-hydroxy-3-[(2-methylpropyl)[(2-(methylthio)-6-benzoxazolyl)sulfonyl]amino]-1-(phenylmethyl)propyl]-, 1,1-dimethylethyl

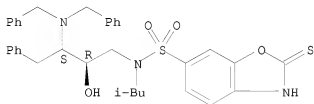
ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

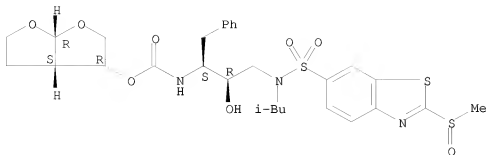
L7 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2005:67041 CAPLUS <<LOGINID::20090204>>  
DOCUMENT NUMBER: 142:309248  
TITLE: Design of HIV-1 Protease Inhibitors Active on Multidrug-Resistant Virus  
AUTHOR(S): Surleraux, Dominique L. N. G.; De Kock, Herman A.; Verschueren, Wim G.; Pille, Geert M. E.; Maes, Louis J. R.; Peeters, Anik; Vendeville, Sandrine; De Meyer, Sandra; Azijn, Hilde; Pauwels, Rudi; De Bethune, Marie-Pierre; King, Nancy M.; Prabu-Jeyabalan, Moses; Schiffer, Celia A.; Wigerinck, Piet B. T. P.  
CORPORATE SOURCE: Tibotec BVBA, Mechelen, B-2800, Belg.  
SOURCE: Journal of Medicinal Chemistry (2005), 48(6), 1965-1973  
CODEN: JMCMAR; ISSN: 0022-2623  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 142:309248  
IT 470704-93-9 848253-11-2  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(design of HIV-1 protease inhibitors active on multidrug-resistant virus)  
RN 470704-93-9 CAPLUS  
CN 6-Benzoxazolesulfonamide, N-[(2R,3S)-3-[bis(phenylmethyl)amino]-2-hydroxy-4-phenylbutyl]-2,3-dihydro-N-(2-methylpropyl)-2-thioxo- (CA INDEX NAME)

Absolute stereochemistry.



RN 848253-11-2 CAPLUS  
CN Carbamic acid, [(1S,2R)-2-hydroxy-3-[(2-methylpropyl)[[2-(methylsulfinyl)-6-benzothiazolyl]sulfonyl]amino]-1-(phenylmethyl)propyl]-, (3R,3aS,6aR)-hexahydrofuro[2,3-b]furan-3-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2002:814117 CAPLUS <<LOGINID::20090204>>  
 DOCUMENT NUMBER: 137:325410  
 TITLE: Broad-spectrum  
 2-(substituted-amino)-benzothiazolesulfonamide HIV  
 protease inhibitors  
 INVENTOR(S): Surleraux, Dominique Louis Nestor Ghislain; Wigerinck,  
 Piet Tom Bert Paul; Getman, Daniel; Verschueren, Wim  
 Gaston; Vendeville, Sandrine; De Bethune,  
 Marie-Pierre; De Kerpel, Jan Octaaf Antoon; Moors,  
 Samuel Leo Christiaan; De Kock, Herman Augustinus;  
 Voets, Marieke Christiane Johanna  
 PATENT ASSIGNEE(S): Tibotec Pharmaceuticals Ltd., Ire.  
 SOURCE: PCT Int. Appl., 83 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002083657	A2	20021024	WO 2002-EP1788	20020214
WO 2002083657	A3	20030213		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2438304	A1	20021024	CA 2002-2438304	20020214
AU 2002302363	A1	20021028	AU 2002-302363	20020214
AU 2002302363	B2	20080501		
EE 200300381	A	20031215	EE 2003-381	20020214
EP 1370543	A2	20031217	EP 2002-729930	20020214
EP 1370543	B1	20061025		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

HU 2003003257	A2	20040128	HU 2003-3257	20020214
BR 2002007862	A	20040622	BR 2002-7862	20020214
JP 2004518767	T	20040624	JP 2002-581413	20020214
CN 1525962	A	20040901	CN 2002-804982	20020214
CN 100369904	C	20080220		
NZ 527391	A	20050429	NZ 2002-527391	20020214
AP 1504	A	20060228	AP 2003-2856	20020214
W: GM, GH, KE, LS, MW, MZ, SL, SD, SZ, TZ, UG, ZM, ZW				
AT 343567	T	20061115	AT 2002-729930	20020214
ES 2275866	T3	20070616	ES 2002-729930	20020214
CN 101230067	A	20080730	CN 2007-10199717	20020214
ZA 2003006086	A	20041108	ZA 2003-6086	20030806
US 20040116485	A1	20040617	US 2003-467609	20030807
KR 870184	B1	20081124	KR 2003-710506	20030808
IN 2003DN01269	A	20050527	IN 2003-DN1269	20030811
NO 2003003584	A	20031014	NO 2003-3584	20030813
NO 326174	B1	20081013		
MX 2003007236	A	20031204	MX 2003-7236	20030813
BG 108143	A	20040730	BG 2003-108143	20030901
HK 1061233	A1	20070427	HK 2004-104020	20040603
PRIORITY APPLN. INFO.:			EP 2001-200529	A 20010214
			US 2001-287758P	P 20010502
			CN 2002-804982	A3 20020214
			WO 2002-EP1788	W 20020214

OTHER SOURCE(S): MARPAT 137:325410

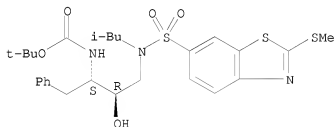
IT 473739-21-8P 473739-22-9P 473739-23-0P  
 473739-27-4P 473739-28-5P 473739-29-6P  
 473739-30-9P 473739-31-0P 473739-32-1P  
 473739-33-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (broad-spectrum 2-aminobenzothiazolesulfonamide HIV protease  
 inhibitors)

RN 473739-21-8 CAPLUS

CN Carbamic acid, [(1S,2R)-2-hydroxy-3-[(2-methylpropyl)[[2-(methylthio)-6-benzothiazolyl]sulfonyl]amino]-1-(phenylmethyl)propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

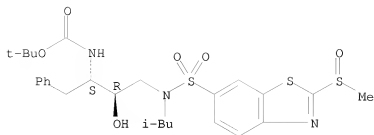
Absolute stereochemistry.



RN 473739-22-9 CAPLUS

CN Carbamic acid, [(1S,2R)-2-hydroxy-3-[(2-methylpropyl)[[2-(methylsulfinyl)-6-benzothiazolyl]sulfonyl]amino]-1-(phenylmethyl)propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

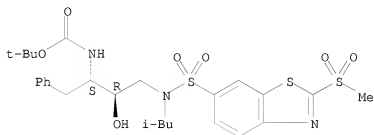
Absolute stereochemistry.



RN 473739-23-0 CAPLUS

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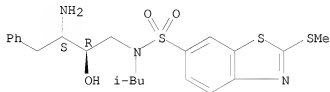
Absolute stereochemistry.



RN 473739-27-4 CAPLUS

CN 6-Benzothiazolesulfonamide, N-[(2R,3S)-3-amino-2-hydroxy-4-phenylbutyl]-N-(2-methylpropyl)-2-(methylthio)- (CA INDEX NAME)

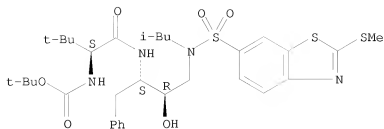
Absolute stereochemistry.



RN 473739-28-5 CAPLUS

CN Carbamic acid, [(1S)-1-[[[(1S,2R)-2-hydroxy-3-[(2-methylpropyl)[[2-(methylthio)-6-benzothiazolyl]sulfonyl]amino]-1-(phenylmethyl)propyl]amino]carbonyl]-2,2-dimethylpropyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

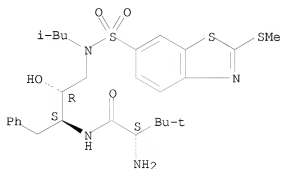
Absolute stereochemistry.



RN 473739-29-6 CAPLUS

CN Butanamide, 2-amino-N-[(1S,2R)-2-hydroxy-3-[(2-methylpropyl)[(2-methylthio)-6-benzothiazolyl]sulfonyl]amino]-1-(phenylmethyl)propyl]-3,3-dimethyl-, (2S)- (CA INDEX NAME)

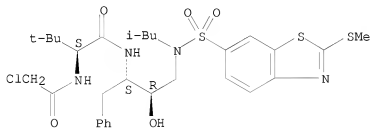
Absolute stereochemistry.



RN 473739-30-9 CAPLUS

CN Butanamide, 2-[(2-chloroacetyl)amino]-N-[(1S,2R)-2-hydroxy-3-[(2-methylpropyl)[(2-methylthio)-6-benzothiazolyl]sulfonyl]amino]-1-(phenylmethyl)propyl]-3,3-dimethyl-, (2S)- (CA INDEX NAME)

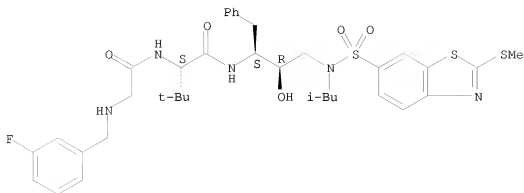
Absolute stereochemistry.



RN 473739-31-0 CAPLUS

CN L-Valinamide, N-[(3-fluorophenyl)methyl]glycyl-N-[(1S,2R)-2-hydroxy-3-[(2-methylpropyl)[(2-methylthio)-6-benzothiazolyl]sulfonyl]amino]-1-(phenylmethyl)propyl]-3-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

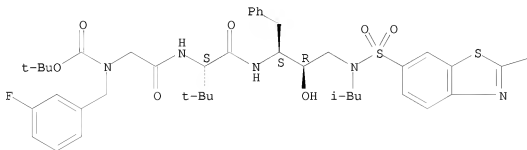


RN 473739-32-1 CAPLUS

CN L-Valinamide, N-[(1,1-dimethylethoxy)carbonyl]-N-[(3-fluorophenyl)methyl]glycyl-N-[(1S,2R)-2-hydroxy-3-[(2-methylpropyl)thio]-6-benzothiazolyl]sulfonyl]amino]-1-(phenylmethyl)propyl]-3-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



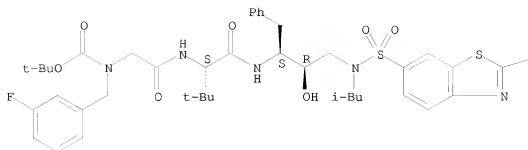
PAGE 1-B

— SMe

RN 473739-33-2 CAPLUS

CN L-Valinamide, N-[(1,1-dimethylethoxy)carbonyl]-N-[(3-fluorophenyl)methyl]glycyl-N-[(1S,2R)-2-hydroxy-3-[(2-methylpropyl)thio]-6-benzothiazolyl]sulfonyl]amino]-1-(phenylmethyl)propyl]-3-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2002:793630 CAPLUS <<LOGINID:20090204>>  
 DOCUMENT NUMBER: 137:310904  
 TITLE: Preparation of 2-(substituted-amino)benzoxazole  
 surleraux, Dominique Louis Nestor Ghislain;  
 INVENTOR(S): Vendeville, Sandrine Marie Helene; Verschueren, Wim  
 Gaston; De Bethune, Marie-Pierre T. M. M. G.; De Kock,  
 Herman Augustinus; Tahri, Abdellah; Erra Sola,  
 Montserrat  
 Tibotec Pharmaceuticals Ltd., Ire.  
 PATENT ASSIGNEE(S): PCT Int. Appl., 55 pp.  
 SOURCE: CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

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WO 2002081478	A2	20021017	WO 2002-EP4012	20020409
WO 2002081478	A3	20030501		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2442870	A1	20021017	CA 2002-2442870	20020409



AU 2002257774	A1	20021021	AU 2002-257774	20020409
AU 2002257774	B2	20070830		
EE 200300494	A	20031215	EE 2003-494	20020409
HU 2003003744	A2	20040301	HU 2003-3744	20020409
HU 2003003744	A3	20080328		
BR 2002008796	A	20040309	BR 2002-8796	20020409
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JP 2004529144	T	20040924	JP 2002-579466	20020409
NZ 528954	A	20050429	NZ 2002-528954	20020409
CN 1636006	A	20050706	CN 2002-811480	20020409
AP 1544	A	20060228	AP 2003-2882	20020409
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BG 108218	A	20040930	BG 2003-108218	20031001
ZA 2003007683	A	20050103	ZA 2003-7683	20031001
IN 2003DN01589	A	20070223	IN 2003-DN1589	20031006
US 20040132791	A1	20040708	US 2003-474162	20031007
US 7244752	B2	20070717		
KR 872029	B1	20081205	KR 2003-713144	20031007
NO 2003004505	A	20031208	NO 2003-4505	20031008
MX 2003009179	A	20041122	MX 2003-9179	20031008
US 20070135447	A1	20070614	US 2007-626183	20070123
PRIORITY APPLN. INFO.:			EP 2001-201308	A 20010409
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			WO 2002-EP4012	W 20020409
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OTHER SOURCE(S): MARPAT 137:310904

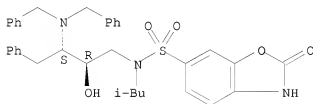
IT **470704-91-7P 470704-93-9P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of aminobenzoxazole sulfonamides as broad-spectrum HIV protease inhibitors)

RN 470704-91-7 CAPLUS

CN 6-Benzoxazolesulfonamide, N-[(2R,3S)-3-[bis(phenylmethyl)amino]-2-hydroxy-4-phenylbutyl]-2,3-dihydro-N-(2-methylpropyl)-2-oxo- (CA INDEX NAME)

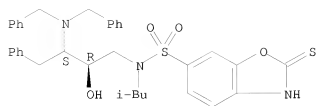
Absolute stereochemistry.



RN 470704-93-9 CAPLUS

CN 6-Benzoxazolesulfonamide, N-[(2R,3S)-3-[bis(phenylmethyl)amino]-2-hydroxy-4-phenylbutyl]-2,3-dihydro-N-(2-methylpropyl)-2-thio- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

10

THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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SESSION RESUMED IN FILE 'CASREACT' AT 13:43:58 ON 19 MAR 2009  
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FULL ESTIMATED COST	146.15	301.46

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ring nodes :
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chain bonds :
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ring bonds :
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exact/norm bonds :
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15-17

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G1:C,H

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Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 10:Atom 11:Atom 12:Atom
13:Atom 14:Atom 15:CLASS 16:CLASS 17:CLASS
fragments assigned reactant role:
containing 1
fragments assigned product role:
containing 10

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L6 STRUCTURE UPLOADED

=> d

L6 HAS NO ANSWERS

L6 STR



G1 C,H

Structure attributes must be viewed using STN Express query preparation.

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 FULL ESTIMATED COST

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ENTRY	SESSION
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FILE CONTENT:1840 - 15 Mar 2009 VOL 150 ISS 12

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*****
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This file contains CAS Registry Numbers for easy and accurate substance identification.

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100.0% DONE      56 VERIFIED      0 HIT RXNS      0 DOCS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED VERIFICATIONS:  672 TO   1568
PROJECTED ANSWERS:       0 TO     0
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L7 0 SEA SSS SAM L6 ( 0 REACTIONS)

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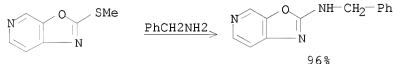
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L9 ANSWER 1 OF 1 CASREACT COPYRIGHT 2009 ACS on STN

RX(5) OF 6



REF: Journal of Organic Chemistry, 60(17), 5721-5; 1995

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L9 ANSWER 1 OF 1 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 123:256657 CASREACT <<LOGINID::20090319>>

TITLE: Preparation of the Four Regioisomeric  
2-(Methylthio)oxazolopyridines: Useful Synthons for  
Elaboration to 2-(Amino substituted)oxazolopyridines  
Chu-Moyer, Margaret Y.; Berger, Richard  
Pfizer Central Research, Groton, CT, 06340, USA  
JOURNAL OF ORGANIC CHEMISTRY (1995), 60(17), 5721-5  
CODEN: JOCEAH; ISSN: 0022-3263  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

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FULL ESTIMATED COST

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=> s HIV protease  
L1 5231 HIV PROTEASE

=> s l1 (L) inhibit\*  
L2 258 L1 (L) INHIBIT\*

=> s l2 (L) sulfonamide  
L3 5 L2 (L) SULFONAMIDE

=> dup rem  
ENTER L# LIST OR (END):l3  
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L4 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 2004:181397 CAPLUS <<LOGINID::20090320>>  
DN 140:296676  
TI Antiviral sulfonamide derivatives  
AU Supuran, Claudiu T.; Innocenti, Alessio; Mastrolorenzo, Antonio;  
Scozzafava, Andrea  
CS Dipartimento di Chimica, Laboratorio di Chimica Bioinorganica, Universita  
degli Studi di Firenze, Sesto Fiorentino, I-50019, Italy  
SO Mini-Reviews in Medicinal Chemistry (2004), 4(2), 189-200  
CODEN: MMCIAE; ISSN: 1389-5575  
PB Bentham Science Publishers Ltd.  
DT Journal; General Review  
LA English  
RE.CNT 68 THERE ARE 68 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 2003:368078 CAPLUS <<LOGINID::20090320>>  
DN 139:206870  
TI Anticancer and antiviral sulfonamides  
AU Scozzafava, Andrea; Owa, Takashi; Mastrolorenzo, Antonio; Supuran, Claudiu  
T.  
CS Dipartimento di Chimica, Laboratorio di Chimica Bioinorganica, Universita  
degli Studi di Firenze, Sesto Fiorentino, I-50019, Italy  
SO Current Medicinal Chemistry (2003), 10(11), 925-953  
CODEN: CMCH7; ISSN: 0929-8673  
PB Bentham Science Publishers Ltd.  
DT Journal; General Review  
LA English

RE.CNT 165 THERE ARE 165 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 2001:799024 CAPLUS <<LOGINID::20090320>>  
DN 136:95633  
TI DPC 681 and DPC 684: potent, selective inhibitors of human  
immunodeficiency virus protease active against clinically relevant mutant  
variants  
AU Kaltenbach, Robert F., III; Trainor, George; Getman, Daniel; Harris, Greg;  
Garber, Sena; Cordova, Beverly; Bachelier, Lee; Jeffrey, Susan; Logue,  
Kelly; Cawood, Pamela; Klabbe, Ronald; Diamond, Sharon; Davies, Marc; Saye,  
Joanne; Jona, Janan; Erickson-Viitanen, Susan  
CS Departments of Chemistry and Physical Sciences, Virology, Drug Metabolism,  
Pharmacy and Safety Assessment, DuPont Pharmaceuticals Co., Wilmington,  
DE, 19880, USA  
SO Antimicrobial Agents and Chemotherapy (2001), 45(11), 3021-3028  
CODEN: AMACCQ; ISSN: 0066-4804  
PB American Society for Microbiology  
DT Journal  
LA English  
RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 1998:503133 CAPLUS <<LOGINID::20090320>>  
DN 129:239439  
OREF 129:48555a,48558a  
TI Tipranavir (PNU-140690): A Potent, Orally Bioavailable Nonpeptidic HIV  
Protease Inhibitor of the 5,6-Dihydro-4-hydroxy-2-pyrone Sulfonamide Class  
AU Turner, Steve R.; Strohbach, Joseph W.; Tommasi, Ruben A.; Aristoff, Paul  
A.; Johnson, Paul D.; Skulnick, Harvey I.; Dolak, Lester A.; Seest, Eric  
P.; Tomich, Paul K.; Bohanon, Michael J.; Horng, Miao-Miao; Lynn, Janet  
C.; Chong, Kong-Teck; Hinshaw, Roger R.; Watenpugh, Keith D.;  
Janakiraman, Musiri N.; Thaisrivongs, Suvit  
CS Department of Structural Analytical & Medicinal Chemistry, Pharmacia  
Upjohn Inc., Kalamazoo, MI, 49001, USA  
SO Journal of Medicinal Chemistry (1998), 41(18), 3467-3476  
CODEN: JMCMAR; ISSN: 0022-2623  
PB American Chemical Society  
DT Journal  
LA English  
OS CASREACT 129:239439  
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 1996:175600 CAPLUS <<LOGINID::20090320>>  
DN 124:232064  
OREF 124:42983a,42986a  
TI Preparation of N-(3-amino-2-hydroxybutyl)sulfonamide derivatives as HIV  
protease inhibitors  
IN Kalish, Vincent J.  
PA Agouron Pharmaceuticals, Inc., USA  
SO PCT Int. Appl., 76 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 5527829 A 19960618 US 1994-247983 19940523  
CA 2190472 A1 19951130 CA 1995-2190472 19950523  
AU 9526586 A 19951218 AU 1995-26586 19950523  
EP 763017 A1 19970319 EP 1995-921534 19950523  
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JP 10501796 T 19980217 JP 1995-530562 19950523  
JP 7332858 B2 20060111  
AT 196288 T 20000915 AT 1995-921534 19950523  
ES 2151600 T3 20010101 ES 1995-921534 19950523  
PT 763017 T 20010131 PT 1995-921534 19950523  
GR 3035014 T3 20010330 GR 2000-402705 20001206  
JP 2006022106 A 20060126 JP 2005-216300 20050726  
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JP 1995-530562 A3 19950523  
WO 1995-US6866 W 19950523  
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RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
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FULL ESTIMATED COST 0.49 17.36

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E2	1	DEKOCK DANIEL P/AU
E3	0 -->	DEKOCK H/AU
E4	1	DEKOCK HERMAN AUGUSTINUS/AU
E5	2	DEKOCK J/AU
E6	1	DEKOCK J A/AU
E7	2	DEKOCK J R/AU
E8	1	DEKOCK J W/AU
E9	1	DEKOCK JAMES R/AU
E10	1	DEKOCK JOEL A/AU
E11	1	DEKOCK JOEL ALAN/AU
E12	10	DEKOCK L/AU

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E7	36	DE KOCK A J R/AU
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E9	1	DE KOCK ALANA/AU
E10	1	DE KOCK ALFONS PETRUS ANTONIUS GERRIT/AU
E11	1	DE KOCK ALLEN/AU
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7 "DE KOCK HERMAN"/AU

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 23 "DE KOCK HERMAN AUGUSTINUS"/AU  
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 L7 9 ("FILLIERS WALTER"/AU OR "FILLIERS WALTER FERDINAND MARIA"/AU)

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 E2 14 AELTERMAN PETER/AU  
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 E5 1 AELTERMAN WIM A/AU  
 E6 4 AELTERMAN WIM ALBERT ALEX/AU  
 E7 2 AELVEBY NILS/AU  
 E8 2 AELVOET C/AU  
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 E12 4 AELVOET ISABELLE/AU

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 4 "AELTERMAN WIM ALBERT ALEX"/AU  
 L8 26 ("AELTERMAN W"/AU OR "AELTERMAN WIM"/AU OR "AELTERMAN WIM A"/AU  
 OR "AELTERMAN WIM ALBERT ALEX"/AU)

=> s 15-18  
 L9 66 (L5 OR L6 OR L7 OR L8)

=> s 11 and 19  
 L10 10 L1 AND L9

=> d 1-10 ibib abs

L10 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2009 ACS ON STN  
 ACCESSION NUMBER: 2007:1469854 CAPLUS <<LOGINID::20090320>>  
 DOCUMENT NUMBER: 148:100596  
 TITLE: Preparation of aminobenzothiazolylsulfonamide  
 derivatives as **HIV protease**  
 inhibitors  
 INVENTOR(S): **De Kock, Herman**; Jonckers, Tim Hugo Maria;

Boonants, Paul Jozef Gabriel Maria; Last, Stefaan  
Julien; Dierynck, Inge; Baumeister, Judith Eva; Van 'T  
Klooster, Gerben Albert Eleutherius  
Tibotec Pharmaceuticals Ltd., Ire.  
PCT Int. Appl., 38pp.  
CODEN: PIXXD2

## Patent

English

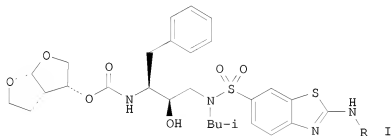
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PRIORITY APPLN. INFO.:

MARPAT 148:100596

11



AB The present invention relates to 2-(substituted-amino)-benzothiazole sulfonamide compds. and derivs. of formula I [R = (un)substituted piperidine or pyrrolidine ring], and their stereoisomers or pharmaceutically acceptable salts, their use as protease inhibitors, in particular as broadspectrum **HIV protease** inhibitors, processes for their preparation as well as pharmaceutical compns. and diagnostic kits comprising them. All the exemplar compds. of the invention were tested in a cellular assay using the MT4-LTR-EGFP cells for

antiviral activity. The assay demonstrated that these compds. exhibit potent anti-HIV activity against a wild type laboratory HIV strain (WT IIIB-2-001) and are effective in inhibiting a broad range of mutant strains. For example, II [R = 1-cyclopentylpiperidin-4-yl] was prepared and showed pEC50 value of 7.88 against IIIB. The invention also concerns combinations of I with another anti-retroviral agent.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2009 ACS ON STN  
 ACCESSION NUMBER: 2007:592132 CAPLUS <<LOGINID:20090320>>  
 DOCUMENT NUMBER: 147:9889  
 TITLE: Aminophenylsulfonamide derivatives as HIV protease inhibitors, their preparation, pharmaceutical compositions, and use in therapy  
 INVENTOR(S): De Kock, Herman Augustinus; Jonckers, Tim  
 Hugo Maria; Last, Stefaan Julien; Boonants, Paul Jozef  
 Gabriel Maria; Surleraux, Dominique Louis Nestor  
 Ghislain; Wigerinck, Piet Tom Bert Paul  
 PATENT ASSIGNEE(S): Tibotec Pharmaceuticals Ltd., Ire.  
 SOURCE: PCT Int. Appl., 41pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007060253	A1	20070531	WO 2006-EP68993	20061128
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
AU 2006316403	A1	20070531	AU 2006-316403	20061128
CA 2628542	A1	20070531	CA 2006-2628542	20061128
EP 1960404	A1	20080827	EP 2006-819815	20061128
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS			
IN 2008DN04419	A	20080815	IN 2008-DN4419	20080523
US 20080269322	A1	20081030	US 2008-94799	20080523
MX 2008006818	A	20080604	MX 2008-6818	20080527
CN 101316850	A	20081203	CN 2006-80044252	20080527
PRIORITY APPLN. INFO.:			EP 2005-111394	A 20051128
			WO 2006-EP68993	W 20061128
OTHER SOURCE(S):	MARPAT 147:9889			
GI				

AB The invention concerns substituted aminophenylsulfonamide compds. of formula I, which are protease inhibitors, in particular, broadspectrum **HIV protease inhibitors**. In compds. I, R1 and R2 are independently selected from H and C1-6 alkyl, optionally substituted by OH, Het, C1-6 alkoxy, C3-7 cycloalkyl, aryl, benzodioxolyl, carbamoyl, C1-6 alkoxy carbonyl, or C1-6 alkyl-C(O)-; and Het is (un)substituted 3- to 14-membered heterocyclyl ring system or (un)substituted 3- to 14-membered heteroaryl ring system; including N-oxides, stereoisomers, racemates, prodrugs, esters, metabolites, and salts thereof. The invention also concerns the preparation of I, pharmaceutical compns. comprising an effective amount of at least one compound I and a pharmaceutically tolerable excipient, optionally in combination with another anti-retroviral agent, as well as to the use of the compns. for the treatment of HIV infections. Cbz-protection of amine II followed by Boc-removal and carbamate formation with 2,5-dioxopyrrolidin-1-yl hexahydrofuro[2,3-b]furan-3-yl carbonate gave the furofuranyl carbamate, which underwent deprotection and sulfonylation with 3-fluoro-4-nitrobenzenesulfonyl chloride resulting in the formation of III. Substitution of III with 2,4-difluorobenzylamine and reduction gave aminophenylsulfonamide IV. The compds. of the invention express anti-retroviral activity, e.g., compound IV expressed EC50 values from 6.87 to 9.21 against a wild-type laboratory HIV strain and four drug-resistant strains.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2007:591289 CAPLUS <LOGINID:20090320>>  
 DOCUMENT NUMBER: 147:9887  
 TITLE: Aminophenylsulfonamide derivatives as **HIV protease inhibitors**, their preparation, pharmaceutical compositions, and use in therapy

INVENTOR(S): **De Kock, Herman Augustinus**; Jonckers, Tim  
 Hugo Maria; Last, Stefaan Julien; Boonants, Paul Jozef  
 Gabriel Maria; Surleraux, Dominique Louis Nestor  
 Ghislain; Wigerinck, Piet Tom Bert Paul  
 Tibotec Pharmaceuticals Ltd., Ire.

PATENT ASSIGNEE(S):  
 SOURCE: PCT Int. Appl., 40pp.  
 CODEN: PIXXD2

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007060249	A1	20070531	WO 2006-EP68983	20061128
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
AU 2006316399	A1	20070531	AU 2006-316399	20061128
CA 2628540	A1	20070531	CA 2006-2628540	20061128

EP 1960381	A1	20080827	EP 2006-819805	20061128
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS				
CN 101304987	A	20081112	CN 2006-80041659	20080508
US 20080306061	A1	20081211	US 2008-94697	20080522
IN 2008DN04416	A	20080815	IN 2008-DN4416	20080523
MX 2008006816	A	20080604	MX 2008-6816	20080527
PRIORITY APPLN. INFO.:			EP 2005-111393	A 20051128
			WO 2006-EP68983	W 20061128
OTHER SOURCE(S):	MARPAT 147:9887			
GI				

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The invention concerns substituted aminophenylsulfonamide compds. of formula I, which are protease inhibitors, in particular, broadspectrum **HIV protease** inhibitors. In compds. I, R1 and R2 are independently selected from H, Het, Het-C1-6 alkyl-C(O)-, and C1-6 alkyl-amino-C1-6 alkyl-C(O)-, optionally substituted by Het; and Het is (un)substituted 3- to 14-membered heterocyclyl ring system or (un)substituted 3- to 14-membered heteroaryl ring system; including N-oxides, stereoisomers, racemates, prodrugs, esters, metabolites, and salts thereof. The invention also concerns the preparation of I, pharmaceutical compns. comprising an effective amount of at least one compound I and a pharmaceutically tolerable excipient, optionally in combination with another anti-retroviral agent, as well as to the use of the compns. for the treatment of HIV infections. Cbz-protection of amine II followed by Boc-removal and carbamate formation with 2,5-dioxopyrrolidin-1-yl hexahydrofuro[2,3-b]furan-3-yl carbonate gave the furofuranyl carbamate, which underwent deprotection and sulfonylation with 3-fluoro-4-nitrobenzenesulfonyl chloride resulting in the formation of III. Substitution of III with 3-amino-1-cyclopentylpyrrolidine dihydrochloride (two-step preparation from 3-(Boc-amino)pyrrolidine given) and reduction gave aminophenylsulfonamide IV. The compds. of the invention express anti-retroviral activity, e.g., compound IV expressed EC50 values from 6.56 to 7.68 against a wild-type laboratory HIV strain and four drug-resistant strains.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2006:1097492 CAPLUS <<LOGINID::20090320>>  
 DOCUMENT NUMBER: 145:432164  
 TITLE: Use of a sulfonamide compound for improving the pharmacokinetics of a drug  
 INVENTOR(S): Van 't Klooster, Gerben Albert Eleutherius; Wigerinck, Piet Tom Bert Paul; De Meyer, Sandra; Baert, Lieven Elvire Colette; **De Kock, Herman Augustinus**  
 PATENT ASSIGNEE(S): Tibotec Pharmaceuticals Ltd., Ire.  
 SOURCE: PCI Int. Appl., 29pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2006108879	A2	20061019	WO 2006-EP61614	20060414
WO 2006108879	A3	20080110		
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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
AU 2006234335	A1	20061019	AU 2006-234335	20060414
CA 2604799	A1	20061019	CA 2006-2604799	20060414
EP 1874307	A2	20080109	EP 2006-754743	20060414
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JP 2008535896	T	20080904	JP 2008-505907	20060414
MX 2007012769	A	20080829	MX 2007-12769	20071012
CN 101175491	A	20080507	CN 2006-80012542	20071015
IN 2007DN07972	A	20071123	IN 2007-DN7972	20071016
US 20080287488	A1	20081120	US 2008-911465	20080610
PRIORITY APPLN. INFO.:				
			EP 2005-103035	A 20050415
			US 2005-684283P	P 20050525
			WO 2006-EP61614	W 20060414

OTHER SOURCE(S): MARPAT 145:432164

AB A method for improving the pharmacokinetics of drugs, which are metabolized by cytochrome P 450 monooxygenase is disclosed. More specifically it relates to a method for improving the pharmacokinetics of retroviral protease inhibitors and in particular for improving the pharmacokinetics of human immunodeficiency virus (HIV) **protease** inhibitors. A pharmaceutical composition and its use in the manufacture of a medicament for the inhibition or treatment of an HIV infection or AIDS in a human being are also part of the invention.

L10 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2009 ACS ON STN

ACCESSION NUMBER: 2005:300421 CAPLUS <<LOGINID:20090320>>

DOCUMENT NUMBER: 142:373819

TITLE: Methods for the preparation of aminohydroxypropyl benzoxazolesulfonamides as intermediates in the preparation of **HIV protease** inhibitors

INVENTOR(S): De Kock, Herman Augustinus; Filliers, Walter Ferdinand Maria; Aelterman, Wim Albert Alex

PATENT ASSIGNEE(S): Tibotec Pharmaceuticals Ltd., Ire.

SOURCE: PCT Int. Appl., 65 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005030739	A1	20050407	WO 2004-EP52382	20040930
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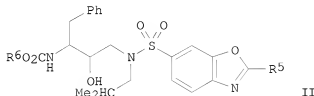
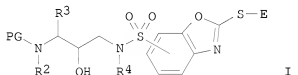
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 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2004276017	A1	20050407	AU 2004-276017	20040930
CA 2537877	A1	20050407	CA 2004-2537877	20040930
EP 1670773	A1	20060621	EP 2004-766869	20040930
EP 1670773	B1	20070207		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
BR 2004014916	A	20061107	BR 2004-14916	20040930
CN 1860107	A	20061108	CN 2004-80028097	20040930
AT 353323	T	20070215	AT 2004-766869	20040930
JP 2007507468	T	20070329	JP 2006-530265	20040930
ES 2281828	T3	20071001	ES 2004-766869	20040930
NZ 546279	A	20080926	NZ 2004-546279	20040930
IN 2006DN00930	A	20070810	IN 2006-DN930	20060222
KR 2006092224	A	20060822	KR 2006-705992	20060327
US 20070123574	A1	20070531	US 2006-574157	20060328
MX 2006003575	A	20060605	MX 2006-3575	20060330
NO 2006001951	A	20060502	NO 2006-1951	20060502

PRIORITY APPLN. INFO.:

EP 2003-103630	A	20030930
US 2003-507996P	P	20031002
WO 2004-EP52382	W	20040930

OTHER SOURCE(S): CASREACT 142:373819; MARPAT 142:373819  
 GI



AB Aminohydroxypropyl benzoxazolesulfonamides I [E = electrophilic moiety; PG = protecting group; R2 = H, alkyl; R3 = (un)substituted cycloalkyl, aryl, heteroaryl, alkyl; R4 = H, HO2C, (un)substituted alkyl, alkoxy carbonyl, aminocarbonyl, cycloalkyl, alkenyl, alkynyl] such as II (R5 = MeS; R6 = Me3C) are prepared as intermediates in the synthesis of **HIV protease** inhibitors such as II (R5 = H2N; R6 = 5-thiazolylmethyl).  
 S-alkylation of 2-benzoxazolethione followed by regioselective



sulfonylation yields an benzoxazolesulfonic acid derivative which sulfonylates an amino alc. (derived from ring opening of an epoxide with an amine) to provide I. For example, 2-mercaptobenzoxazole is methylated and the product regioselectively sulfonylated with chlorosulfonic acid and converted to the sulfonyl chloride with thionyl chloride to yield 2-(methylthio)-6-benzoxazolesulfonyl chloride. Ring opening of [1-(Boc-amino)-2-phenylethyl]oxirane (Boc = Me3CCOC) with isobutylamine yields the amine PhCH2CH(NHBoc)CH(OH)CH2NHCH2CHMe2 (III). Sulfonylation of III with 2-(methylthio)-6-benzoxazolesulfonyl chloride provides II (R5 = MeS; R6 = Me3C). Heating of II (R5 = MeS; R6 = Me3C) with ammonia under pressure, cleavage of the Boc group with hydrogen chloride in isopropanol, and treatment with mono(N-hydroxysuccinimidyl) mono(5-thiazolylmethyl) carbonate yields II (R5 = H2N; R6 = 5-thiazolylmethyl).

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2009 ACS ON STN  
 ACCESSION NUMBER: 2003:931343 CAPLUS <<LOGINID:20090320>>  
 DOCUMENT NUMBER: 140:704  
 TITLE: Broad-spectrum substituted benzisoxazole sulfonamide

**HIV protease inhibitors, preparation thereof, pharmaceutical compositions, diagnostic kits, and combinations with other antiretroviral agents**  
 INVENTOR(S): Surleraux, Dominique Louis Nestor Ghislain; Vergouwen, Bernhard Joanna Bernard; **De Kock, Herman Augustinus**

PATENT ASSIGNEE(S): Tibotec Pharmaceuticals Ltd, Ire.  
 SOURCE: PCT Int. Appl., 55 pp.  
 CODEN: PIXXD2

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003097616	A1	20031127	WO 2003-EP50173	20030516
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2485903	A1	20031127	CA 2003-2485903	20030516
AU 2003238074	A1	20031202	AU 2003-238074	20030516
BR 2003010089	A	20050215	BR 2003-10089	20030516
EP 1517899	A1	20050330	EP 2003-735707	20030516
EP 1517899	B1	20070829		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1668605	A	20050914	CN 2003-816458	20030516
JP 2005527607	T	20050915	JP 2004-505349	20030516
NZ 536496	A	20060630	NZ 2003-536496	20030516
AT 371652	T	20070915	AT 2003-735707	20030516
ES 2292976	T3	20080316	ES 2003-735707	20030516
US 20050171173	A1	20050804	US 2004-514539	20041112
US 7462636	B2	20081209		

MX 2004011466	A	20050214	MX 2004-11466	20041117
NO 2004005444	A	20050216	NO 2004-5444	20041214
ZA 2004010156	A	20050905	ZA 2004-10156	20041215
HK 1076099	A1	20080201	HK 2005-108052	20050914
PRIORITY APPLN. INFO.:			EP 2002-76957	A 20020517
			WO 2003-EP50173	W 20030516

OTHER SOURCE(S): MARPAT 140:704

AB The invention discloses benzisoxazole sulfonamide derivs. and the N-oxides, salts, stereoisomers, racemic mixts., prodrugs esters, and metabolites thereof. Also disclosed are their use as broad-spectrum **HIV protease inhibitors**, processes for their preparation, and pharmaceutical compns. and diagnostic kits comprising them. Further disclosed are combinations of the compds. of the invention with another antiretroviral agent, and their use in assays as reference compds. or as reagents.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2009 ACS ON STN  
 ACCESSION NUMBER: 2003:737734 CAPLUS <<LOGINID:20090320>>  
 DOCUMENT NUMBER: 139:261299  
 TITLE: Preparation of broad spectrum substituted benzimidazolesulfonamide **HIV protease inhibitors**

INVENTOR(S): Surleraux, Dominique Louis Nestor Ghislain; Wigerinck, Piet Tom Bert Paul; Voets, Marieke Christiane Johanna; Vendeville, Sandrine Marie Helene; **De Kock, Herman Augustinus**; Vergouwen, Bernhard Joanna Bernard

PATENT ASSIGNEE(S): Tibotec Pharmaceuticals Ltd., Ire.

SOURCE: PCT Int. Appl., '75 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003076413	A1	20030918	WO 2003-EP50057	20030312
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2479012	A1	20030918	CA 2003-2479012	20030312
AU 2003219159	A1	20030922	AU 2003-219159	20030312
BR 2003003373	A	20040323	BR 2003-3373	20030312
EP 1485358	A1	20041215	EP 2003-714954	20030312
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JP 2005519952	T	20050707	JP 2003-574633	20030312
CN 1653053	A	20050810	CN 2003-810472	20030312
ZA 2004007242	A	20051004	ZA 2004-7242	20040909
US 20050171175	A1	20050804	US 2004-508561	20040910
MX 2004008929	A	20041126	MX 2004-8929	20040913

PRIORITY APPLN. INFO.:

EP 2002-75999

A 20020312

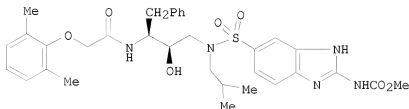
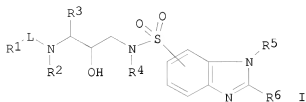
WO 2003-EP50057

W 20030312

OTHER SOURCE(S):

MARPAT 139:261299

GI



II

AB Title compds. I [R1 = H, alkyl, alkenyl, aralkyl, aralkenyl, cycloalkyl, cycloalkylalkyl, aryl, heterocyclic, heterocyclylalkyl, aminoalkyl; R2 = H, alkyl; R3 = (un)substituted alkyl, aryl, cycloalkyl; R4 = H, (un)substituted CO2H, CONH2, cycloalkyl, alkenyl, alkynyl, OH, NH2; R5 = H, (un)substituted alkyl; R6 = H, (un)substituted alkyl, NH2; L = CO, CO2, (un)substituted NHCO, OXCO, NHXCO, SO2, SO3, NHSO2, NHXS02, where either CO or SO12 is attached to NR2; X = alkanediyl] were prepared. Thus, Me 2-benzimidazolecarbamate was chlorosulfonylated, treated with (1S,2R)-PhCH2CH(NHBoc)CH(OH)CH2NHCH2CHMe2, deblocked, and treated with 2,6-Me2C6H3OCH2CO2H to give the title compound II which had PIC50 against HIV-1 strain LAI of 8.5.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2009 ACS ON STN  
 ACCESSION NUMBER: 2002:888736 CAPLUS <<LOGINID:20090320>>  
 DOCUMENT NUMBER: 137:384835  
 TITLE: Preparation of 2-amino-benzoxazole sulfonamide as broad-spectrum **HIV protease** inhibitors  
 INVENTOR(S): Surleraux, Dominique Louis Nestor Ghislain; Vendeville, Sandrine Marie Helene; Verschueren, Wim Gaston; De Bethune, Marie-Pierre T. M. M. G.; De Kock, Herman Augustinus; Tahri, Abdellah  
 PATENT ASSIGNEE(S): Tibotec Pharmaceuticals Ltd., Ire.  
 SOURCE: PCT Int. Appl., 54 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2002092595 A1 20021121 WO 2002-EP5212 20020510

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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2444895 A1 20021121 CA 2002-2444895 20020510

AU 2002310818 A1 20021125 AU 2002-310818 20020510

AU 2002310818 B2 20071213

EP 1387842 A1 20040211 EP 2002-735354 20020510

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

EE 200300547 A 20040216 EE 2003-547 20020510

BR 2002009594 A 20040330 BR 2002-9594 20020510

CN 1507446 A 20040623 CN 2002-809741 20020510

HU 2004000438 A2 20040830 HU 2004-438 20020510

HU 2004000438 A3 20070828

JP 2004534757 T 20041118 JP 2002-589479 20020510

NZ 529250 A 20050527 NZ 2002-529250 20020510

AP 1652 A 20060831 AP 2003-2904 20020510

ZA 2003007799 A 20050106 ZA 2003-7799 20031006

IN 2003DN01588 A 20070112 IN 2003-DN1588 20031006

KR 878853 B1 20090115 KR 2003-713145 20031007

US 20040106661 A1 20040603 US 2003-474485 20031009

BG 108309 A 20041230 BG 2003-108309 20031103

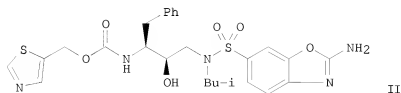
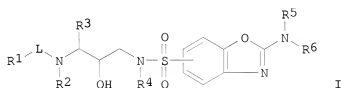
MX 2003010258 A 20050307 MX 2003-10258 20031110

PRIORITY APPLN. INFO.: EP 2001-201732 A 20010511

WO 2002-EP5212 W 20020510

OTHER SOURCE(S): MARPAT 137:384835

GI



AB Title compds. I [R1, R8 = H, alkyl, alkenyl, arylalkyl, cycloalkyl, aryl,

heterocyclyl, etc.; R2 = H, alkyl; L = CO, OCO, NR8CO, etc.; R3 = alkyl, cycloalkyl, aryl, etc.; R4 = H, alkoxy carbonyl, carboxy, aminocarbonyl, cycloalkyl, etc.; R5-6 = H, alkyl, N-oxides, stereoisomers, metabolites and prodrugs thereof were prepared. For instance, II was prepared from the corresponding diamine (preparation described), N,N'-disuccinimidylcarbonate and 5-hydroxymethylthiazole (CH2Cl2, 6 h). Compds. of the invention are effective in inhibiting a broad range of mutant HIV strains; II had pEC50 = 8.18 against HIV-1 (Lai strain).

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2009 ACS ON STN  
 ACCESSION NUMBER: 2002:814117 CAPLUS <<LOGINID:20090320>>  
 DOCUMENT NUMBER: 137:325410  
 TITLE: Broad-spectrum  
 2-(substituted-amino)-benzothiazolesulfonamide  
**HIV protease inhibitors**  
 INVENTOR(S): Surleraux, Dominique Louis Nestor Ghislain; Wigerinck, Piet Tom Bert Paul; Getman, Daniel; Verschueren, Wim Gaston; Vendeville, Sandrine; De Bethune, Marie-Pierre; De Kerpel, Jan Octaaf Antoon; Moors, Samuel Leo Christiaan; **De Kock, Herman Augustinus**; Voets, Marieke Christiane Johanna  
 PATENT ASSIGNEE(S): Tibotec Pharmaceuticals Ltd., Ire.  
 SOURCE: PCT Int. Appl., 83 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

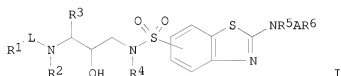
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002083657	A2	20021024	WO 2002-EP1788	20020214
WO 2002083657	A3	20030213		
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RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2438304	A1	20021024	CA 2002-2438304	20020214
AU 2002302363	A1	20021028	AU 2002-302363	20020214
AU 2002302363	B2	20080501		
EE 200300381	A	20031215	EE 2003-381	20020214
EP 1370543	A2	20031217	EP 2002-729930	20020214
EP 1370543	B1	20061025		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
HU 2003003257	A2	20040128	HU 2003-3257	20020214
BR 2002007862	A	20040622	BR 2002-7862	20020214
JP 2004518767	T	20040624	JP 2002-581413	20020214
CN 1525962	A	20040901	CN 2002-804982	20020214
CN 100369904	C	20080220		
NZ 527391	A	20050429	NZ 2002-527391	20020214
AP 1504	A	20060228	AP 2003-2856	20020214
W:	GM, GH, KE, LS, MW, MZ, SL, SD, SZ, TZ, UG, ZM, ZW			
AT 343567	T	20061115	AT 2002-729930	20020214

ES 2275866	T3	20070616	ES 2002-729930	20020214
CN 101230067	A	20080730	CN 2007-10199717	20020214
ZA 2003006086	A	20041108	ZA 2003-6086	20030806
US 20040116485	A1	20040617	US 2003-467609	20030807
KR 870184	B1	20081124	KR 2003-710506	20030808
IN 2003DN01269	A	20050527	IN 2003-DN1269	20030811
NO 2003003584	A	20031014	NO 2003-3584	20030813
NO 326174	B1	20081013		
MX 2003007236	A	20031204	MX 2003-7236	20030813
BG 108143	A	20040730	BG 2003-108143	20030901
HK 1061233	A1	20070427	HK 2004-104020	20040603

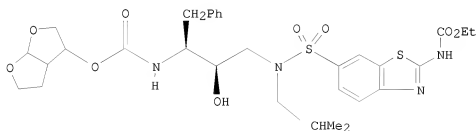
PRIORITY APPLN. INFO.:

EP 2001-200529	A	20010214
US 2001-287758P	P	20010502
CN 2002-804982	A3	20020214
WO 2002-EP1788	W	20020214

OTHER SOURCE(S): MARPAT 137:325410  
GI



I



II

AB Title compds. I [R1, R8 = H, (un)substituted alkyl, alkenyl, cycloalkyl, aryl, heterocyclyl, heterocyclylalkyl; R2 = H, alkyl; L = CO, O2C, (un)substituted NHCO, oxoalkylcarbonyl, aminoalkylcarbonyl, SO2, O3S, NHSO2; R3 = alkyl, aryl, cycloalkyl, cycloalkylalkyl, aralkyl; R4 = H, alkoxy, carbonyl, carboxy, (un)substituted CONH2, cycloalkyl, alkenyl, alkynyl (un)substituted alkyl; A = alkanediyl, CO, CS, SO2, oxoalkanediyl, thioalkanediyl, alkanediylsulfonyle; R5 = H, OH, alkyl, heterocyclylalkyl, (un)substituted aminoalkyl; R6 = alkoxy, heterocyclyl, heterocyclyloxy, aryl, aryloxy, alkoxy, carbonylamino, amino; and when A is other than alkanediyl then R6 may also be alkyl, heterocyclylalkyl, heterocyclyloxyalkyl, aralkyl, aryloxyalkyl, (un)substituted aminoalkyl; R5NAR6 = heterocyclic] their N-oxides, salts, stereoisomeric forms, racemic mixts., prodrugs, esters and metabolites were prepared I are useful as broad-spectrum **HIV protease** inhibitors, and may be formulated in diagnostic kits. Thus, the sulfonamide II, prepared in several steps from the benzothiazolecarbamate, showed activity against a number of resistant mutants of HIV-1 strain LAI.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS

## RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

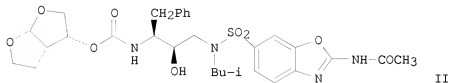
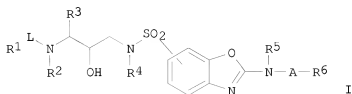
L10 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2002:793630 CAPLUS <<LOGINID:20090320>>  
 DOCUMENT NUMBER: 137:310904  
 TITLE: Preparation of 2-(substituted-amino)benzoxazole  
 sulfonamides as broadspectrum HIV  
 protease inhibitors  
 INVENTOR(S): Surleraux, Dominique Louis Nestor Ghislain;  
 Vendeville, Sandrine Marie Helene; Verschueren, Wim  
 Gaston; De Bethune, Marie-Pierre T. M. M. G.; De  
 Kock, Herman Augustinus; Tahri, Abdellah; Erra  
 Sola, Montserrat  
 PATENT ASSIGNEE(S): Tibotec Pharmaceuticals Ltd., Ire.  
 SOURCE: PCT Int. Appl., 55 pp.  
 CODEN: P1XXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002081478	A2	20021017	WO 2002-EP4012	20020409
WO 2002081478	A3	20030501		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
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CA 2442870	A1	20021017	CA 2002-2442870	20020409
AU 2002257774	A1	20021021	AU 2002-257774	20020409
AU 2002257774	B2	20070830		
EE 200300494	A	20031215	EE 2003-494	20020409
HU 2003003744	A2	20040301	HU 2003-3744	20020409
HU 2003003744	A3	20080328		
BR 2002008796	A	20040309	BR 2002-8796	20020409
EP 1397367	A2	20040317	EP 2002-727554	20020409
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CN 1636006	A	20050706	CN 2002-811480	20020409
AP 1544	A	20060228	AP 2003-2882	20020409
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BG 108218	A	20040930	BG 2003-108218	20031001
ZA 2003007683	A	20050103	ZA 2003-7683	20031001
IN 2003DN01589	A	20070223	IN 2003-DN1589	20031006
US 20040132791	A1	20040708	US 2003-474162	20031007
US 7244752	B2	20070717		
KR 872029	B1	20081205	KR 2003-713144	20031007
NO 2003004505	A	20031208	NO 2003-4505	20031008
MX 2003009179	A	20041122	MX 2003-9179	20031008
US 20070135447	A1	20070614	US 2007-626183	20070123
PRIORITY APPLN. INFO.:			EP 2001-201308	A 20010409
			US 2001-287704P	P 20010502

OTHER SOURCE(S):

MARPAT 137:310904

GI



AB Benzoxazole sulfonamides of formula I [R1 = H, alkyl, alkenyl, arylalkyl, aryl, etc.; R2 = H, alkyl; R3 = alkyl, aryl, cycloalkyl, cycloalkyl-alkyl, arylalkyl; R4 = H, alkyloxycarbonyl, carboxyl, aminocarbonyl, etc.; R5 = H, OH, alkyl, etc.; R6 = alkyloxy, aryl, aryloxy, etc.; L = CO, O-CO, NHCO, O-alkyl-CO, SO2, etc.; A = alkylene, CO, CS, SO2, etc.] are prepared as broad-spectrum **HIV protease** inhibitors. The compds. can also be combined with another anti-retroviral agent, and be used in assays as reference compds. or as reagents. Thus, II was prepared, and was effective in inhibiting a broad range of mutant strains in a cellular assay.

REFERENCE COUNT:

10

THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT